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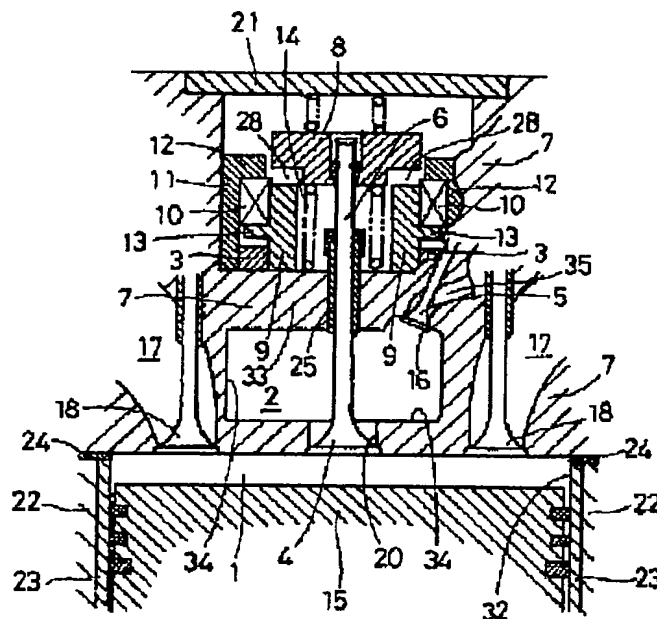
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TITLE : AUXILIARY CHAMBER TYPE GAS
ENGINE HAVING SOLENOID VALVE
DRIVING DEVICE



ABSTRACT : PURPOSE: To prevent the occurrence of demagnetization of a permanent magnet and to perform smooth operation to open and close a control valve by driving a control valve, located in a communication hole through which a main chamber and an auxiliary chamber are intercommunicated, by a solenoid valve driving device with a built-in permanent magnet.

CONSTITUTION: Main and auxiliary chambers 1 and 2 are intercommunicated through a communication hole 20 in which a control valve 4 is arranged. A solenoid valve driving device to open and close the control valve 4 comprises an armature 8 fixed to a valve stem 6; a spring 14 to energize a spring force on the control valve 4 in the closing direction of the communication hole 20 ; an inner yoke 9 disposed at an armature 8 with a gap 28 equivalent to the lift of the control valve 4; an electromagnetic winding 10 disposed between inner and outer yokes 9 and 12; and a permanent magnet 3 disposed between the inner and outer yokes 9 and 12. A bypass yoke 13 extending from the inner yoke 9 is located between the inner and outer yokes 9 and 12.

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